

SYNONYMY OF *ARCHISOLVA* ENDERLEIN
AND ITS PLACEMENT IN THE
STRATIOMYIDAE (DIPTERA)*

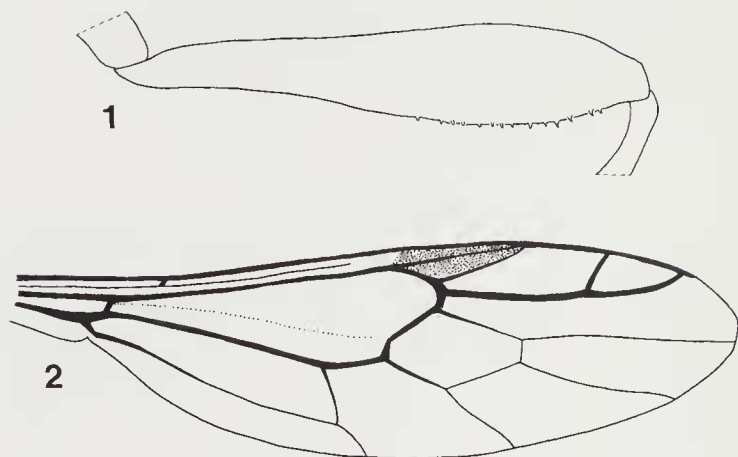
BY NORMAN E. WOODLEY
Museum of Comparative Zoology
Harvard University
Cambridge, Massachusetts 02138

Enderlein (1921) described the genus *Archisolva* from a unique female specimen of a new species described concurrently, *A. carinifrons*. It was placed in the subfamily Xylophaginae, tribe Metoponiini. In the former category, Enderlein assembled diverse taxa presently considered to belong to several families of Diptera Brachycera. The Metoponiini contained stratiomyids included in two subfamilies in present classifications, the Chiromyzinae and Beridinae, which Enderlein grouped together because they lack scutellar spines. *Archisolva* has remained enigmatic to subsequent workers largely due to the lack of additional material. James (1975) was not able to place the genus in any subfamily as presently defined, on the basis of the description, and relegated it to an "unplaced genus and species of Stratiomyidae."

I have recently examined Enderlein's type specimen, and have been able to properly place the taxon. The genus *Archisolva* is congeneric with *Salduba* Walker (1859; NEW SYNONYMY), a genus in the Pachygasterinae.

Three characters that the type specimen shares with *Salduba*, which appear to be autapomorphic for the genus and are shared by all members of the genus I have examined, are: (1) the median, longitudinal frontal carina found in females; (2) the strongly clavate hind femora (Fig. 1); and (3) the elongate, narrow wings (Fig. 2; see also Enderlein's Fig. 8, p. 187). The frontal carina may be faint in some species of *Salduba*, but at least a trace of it is present in all the females examined. In the holotype of *A. carinifrons*, which has the strongest frontal carina of any species I examined, this feature may be artificially exaggerated. The uneven drying of the eye surfaces indicates that the specimen was slightly teneral, and the lateral areas of the frons may be collapsed more than would normally be

*Manuscript received by the editor March 22, 1981



Figs. 1-2. *Salduba carinifrons* (Enderlein). 1. Left hind femur, showing ventral tubercles. 2. Right wing. Figures are from the holotype specimen.

expected. The elongation of the wing is especially evident basal to the discal cell. The alula is very narrow and the anal angle is very broadly rounded, the region posterior to the anal cell being no wider than the cell itself.

The type specimen of *Archisolva carinifrons* shares the following characters with members of *Salduba* which are useful in identifying the genus (these characters cannot be considered autapomorphic for *Salduba* because they are present in other pachygasterine taxa): (1) antennal flagellomeres one to seven forming an elongate but compressed complex 2.5 to 3.5 times longer than wide; (2) eighth flagellomere forming a long, plumose style much longer than the rest of the flagellum; (3) second antennal segment produced internally along the flagellum; (4) scutellum unarmed; (5) wing with R₂₊₃ proximal to r-m; and (6) abdomen much longer than wide. It should be noted that Enderlein's figure of the antenna of *Archisolva carinifrons* (1921: 187, Fig. 7) shows its general form, but the majority of the eighth flagellomere is missing, and the angle at which he illustrated the antenna does not show the projection of the second segment along the flagellum.

Salduba has previously been unrecorded from the Oriental Region. Previous material has been collected mainly from New

Guinea, and no species has been described from outside the Australian Region. Thus the present new generic synonymy results in the first report of *Salduba* from the Oriental Region.

Salduba carinifrons (Enderlein), NEW COMBINATION

Archisolva carinifrons Enderlein, 1921: 187.

Type material. The unique female holotype is presently housed in the Zoologisches Museum of the Humboldt-Universität, Berlin, East Germany. It is labeled "Lombok Sapit 2000' Mai-Juni 1896. H. Fruhstorfer/ Type [red]/ *Archisolva carinifrons* Type Enderl. ♀ Dr. Enderlein det. 1920." I have added a determination label indicating the new combination. The specimen is missing the last two segments of the right antenna. The left antenna is missing most of the eighth flagellomere, and is glued to a paper point beneath the specimen. The left middle leg beyond the middle of the femur, and the left wing are also lost. The right wing is glued to a paper card beneath the specimen.

Remarks. At present it is not possible to determine if *S. carinifrons* is conspecific with any other species of *Salduba* without examination of other types. The genus at present is in need of revision.

Salduba carinifrons has the ventral spine-like tubercles on the hind femora (Fig. 1) that some, but not all, *Salduba* species possess. This character would appear to be apomorphic for the group of species that exhibit the tubercles, as no other pachygasterines that I am aware of possess them. Some species of *Salduba* do not have femoral tubercles, but it cannot be determined at present if this character state is plesiomorphic or has resulted from a secondary loss of the tubercles. The same argument can be applied to the posterodorsal swelling on the fifth abdominal tergite that some *Salduba* possess. Although quite faint in *S. carinifrons*, it is present. Of the species I have examined, *S. carinifrons* appears to be most closely related to specimens identified as *S. lugubris* Walker. The two taxa share the above pair of characters, and also lack thoracic vittae and frontal processes at the bases of the antennae. These two species have the narrowest wing bases that I have observed within the genus. *Salduba carinifrons* differs from all other species I have seen in that it has wholly pale anterior tibiae.

Acknowledgments. I am grateful to H. Schumann for the loan of

the Enderlein type, W. J. Turner for the loan of *Salduba* material from the James Entomological Collection at Washington State University, and R. J. McGinley for reviewing the manuscript.

LITERATURE CITED

- ENDERLEIN, G.
1921. Über die phyletisch älteren Stratiomyiden-subfamilien (Xylophaginae, Chiromyzinae, Solvinae, Beridinae, und Coenomyiinae). Mitt. Zool. Mus. Berlin 10: 151-214.
- JAMES, M. T.
1975. Family Stratiomyidae, in M. D. Delfinado and D. E. Hardy, eds. A Catalog of the Diptera of the Oriental Region. Volume II. Suborder Brachycera through division Aschiza, suborder Cyclorrapha. Honolulu, University Press of Hawaii. 459 pp.
- WALKER, F.
1859. Catalogue of the dipterous insects collected in the Aru Islands by Mr. A. R. Wallace, with descriptions of new species. Proc. Linn. Soc. London 3: 77-131.